

ABSTRACT OF THE DISCLOSURE

A technique for manufacturing optical fixed attenuators in which two fibers are axially cojoined using fusion splicing. The spliced fibers are then captured in either a splice protection splint or cylindrical ferrule that can be housed in an optical adapter. In this process for producing the attenuator, the fusion splicing is preceded by a deformation of the mode field diameters of the ends of the fibers with the cleaning arc function of the splicing unit. The resulting attenuation of the splice is dependent on the amount of deformation of the fiber core and mode field diameter. Such a technique enables precision attenuation with very low wavelength dependent loss to be fabricated. The performance of Dense Wavelength Division Multiplexing systems, as well as test facilities and individual optical components can be improved by the use of such attenuators.